

Math 1180: TBD Assignment 1
Due on Jan 11

In class, we derived the model

$$I_{t+1} = \frac{3}{4} \left(I_t + \frac{1}{2} I_t \left(1 - \frac{I_t}{20} \right) \right)$$

to describe the average number of people infected at time $t + 1$ in a class of size 20 if there are I_t infected at time t .

- a. Find the equilibrium of this model.
- b. Graph the updating function.
- c. What would happen if the class had 500 students?